Amendments to the Specification

Please replace the paragraph beginning on page 2, line 35, and ending on page 3, line 8, with the following amended paragraph:

While these conventional methods of duplication improve reliability, they are also inefficient because they use twice as many resources. In addition, this conventional approach may be ineffective if a single fault may afflict both duplicates. For example, if both storage modules (and/or both servers) are at the same location, a power outage or flood would render both of them useless. When the same information is transmitted twice in a wired network, the information typically proceeds along the same path in the network. Therefore, if that same path is congested or experiences an ~~outage. then~~ <u>outage, then</u> both duplicates of the information would be lost. To summarize, in an attempt to improve reliability the conventional approach is to duplicate information and resources. This conventional approach is inefficient because of the duplication, and is also ineffective because in many cases there can still exist single points of failure.

Please replace the paragraph beginning on page 14, line 2, with the following amended paragraph:

With reference again to Figure 3A, a system 300 that delivers streaming media to mobile clients over hybrid wired/wireless networks in accordance with one embodiment of the present invention is shown. In one embodiment, system 300 consists of one or more servers (304a-304e), one or more wireless base stations (306a and 306b), and one or more mobile clients (e.g. ~~cellphone~~ <u>cell phone</u> 302 and/or personal digital assistants (PDAs) 308a and 308b) as shown in Figure 3A. The system of the present invention may include a greater or lesser number of components than are specifically illustrated in the embodiment of Figure 3A. As an example, although not always required, a content server 310 also forms a portion of the system of the embodiment of Figure 3A. Importantly, in the following discussion, the term ~~"server" is~~ <u>"server"</u> in various embodiments is intended to encompass a device functionally resembling a computer (e.g. having computation ability, memory, and/or connectivity capability). A typical server according to the definition as used in the present application may include, but is not limited to, any computer (e.g. mainframe, corporate

server, personal computer (PC), laptop, personal digital assistant (PDA), and the like). In various other embodiments of the present invention, the term "server" is intended to encompass a device not typically considered a computer but having similar capabilities. In such an embodiment, the server is comprised, for example, of an advanced cell phone.

Please replace the paragraph beginning on page 14, line 24, and ending on page 15, line 22, with the following amended paragraph:

Importantly, it should be noted that the methods of various embodiments of the present invention are applicable with fixed wired clients and/or mobile wireless clients. Specifically, the mobile client case is a more general and superset version of the fixed client case. For example, in the mobile client case, the MD bitstreams are provided by a server or servers to a mobile client through one or more base stations. In contrast, the corresponding fixed (wired) client case would have the server or servers instead provide the MD bitstreams directly to the fixed client without the need for a base station. Therefore, in the following discussion, will specifically discuss the more general and superset mobile client case. For purposes of brevity and clarity, redundant examples of fixed client cases are not presented herein. It will be understood by one of ordinary skill in the art, however, that in an example in which MD bitstreams are provided by a server or servers to a mobile client by one or more base stations, in the fixed client case the server or servers would instead provide the MD bitstreams to the fixed client without the need for a base station. With reference now to Figure 3B, a system 350 that delivers streaming media to fixed clients over a network (e.g. the Internet) in accordance with one embodiment of the present invention is shown. In one embodiment, system 350 ~~consists of a~~ consists of one or more fixed clients (e.g. personal computers 352 and 356), one or more servers (304a-304e), ~~a content~~ and a content server 310. In the present embodiment fixed client 352 is coupled to network 351 via a wired link 354. Similarly, fixed client 356 is coupled to network 351 via a wired link 358. The system of the present invention may include a greater or lesser number of components than are specifically illustrated in the embodiment of Figure 3B. As an example, although not always required, content server 310 also forms a portion of the system of the embodiment of Figure 3B. As mentioned above, in the following discussion, the term

~~"server" is~~ "server" in various embodiments ~~intended to~~ is intended to encompass a device functionally resembling a computer (e.g. having computation ability, memory, and/or connectivity capability). A typical server according to the definition as used in the present application may include, but is not limited to, any computer (e.g. mainframe, corporate server, personal computer (PC), laptop, personal digital assistant (PDA), and the like). In various other embodiments of the present invention, the term "server" is intended to encompass a device not typically considered a computer but having similar capabilities. In such an embodiment, the server is comprised, for example, of an advanced cell phone.

Please replace the paragraph beginning on page 17, line 13, with the following amended paragraph:

At step 404, the present embodiment then distributes the MD streams to a number of different servers (e.g. servers 304a-304e of Figure 3) placed at intermediate nodes throughout a network. By, appropriately distributing the MD streams, the present invention eliminates the possibility that any single fault may render all streams useless. In one embodiment, the present invention uses servers that are placed at intermediate nodes in the network, for example alongside a router or a wired/wireless gateway. In the present embodiment, servers 304a-304e send the MD streams to nearby wireless base stations 306a and 306b as mobile clients 302, 308a, and 308b roam through their coverage areas. Wireless base stations 306a and 306b receive data from the wired network and wirelessly transmit this data to mobile clients 302, 308a and 308b. Likewise, wireless base stations 306a and 306b wirelessly receive data from mobile clients 302, 308a and 308b and transmit this data to the wired network. Thus, wireless base stations 306a and 306b can be viewed as having a wired/wireless gateway and a wireless transmitter/receiver. Furthermore, as will be described in detail below, the various ~~embodiment~~ embodiments of the present invention overcome the non-guaranteed, best-effort nature of existing networks by dynamically delivering MD streams to mobile users from the most accessible servers based on user mobility, network congestion, and server load.

Please replace the paragraph beginning on page 18, line 12, with the following amended paragraph:

Referring again to steps 402, 404 and 406, a detailed example (using ~~Figure 3~~ Figure 3A for illustration) is provided below of the operation of the present embodiment. In the present example, a video sequence media stream has previously been coded into two MD streams which were then both stored on content server 310. The first of the two MD streams is placed at a first storage module, coupled to server 304a. The second of the two MD streams is placed at a second storage module coupled to server 304e. When the video sequence media stream is requested, for example, by cell phone 302, the first of the two MD streams is sent over a first path to cell phone 302, and the second of the two MD streams is sent over a second path to cell phone 302. In the present example, the first path comprises transmission over a wired network connection from server 304a ultimately to wireless base station 306a, and then wirelessly transmitting the first MD stream of the requested video sequence from wireless base station 306a to cell phone 302. Furthermore, in the present example, the second path comprises transmission over a wired network connection from server 304e ultimately to wireless base station 306b, and then wirelessly transmitting the second MD stream of the requested video sequence from wireless base station 306b to cell phone 302. The MD streams of the present embodiment have the property that any number of streams can be decoded into a sequence in which the quality of the decoded sequence depends on the number of decoded MD streams. Specifically, any one MD stream can be decoded into baseline quality data; any two MD streams can be decoded into improved quality data; and so on until finally all the MD streams can be decoded into the highest quality data. Thus, should one of the paths fail in the preceding example (e.g. the second path), cell phone 302 is still able to receive and utilize the requested video sequence based solely on receiving only one of the MD streams.

Please replace the paragraph beginning on page 21, line 35, with the following amended paragraph:

As will be discussed in greater detail below, the MD media bitstream system of the various embodiments of the present invention must perform a number of steps prior to and during a streaming session. The present section specifically discusses the

assignment and distribution to servers, e.g. servers 304a-304e, located throughout a network such as is shown in ~~Figure 3~~ Figure 3A.

Please replace the paragraph beginning on page 24, line 1, with the following amended paragraph:

With reference still to step 604, because two MD bitstreams are recited above (i.e. because N is 2 in the present example), the present embodiment sets the number of servers (S), d, required to service the ~~"hottest~~ "hottest" cell, cell 506a, at two.

Please replace the paragraph beginning on page 26, line 17, and ending on page 27, line 4, with the following amended paragraph:

While the above description refers primarily to the first application of the present method (i.e. initial population of servers with MD bitstreams from content providers), the second portion of the present method (i.e. redistribution of the MD bitstreams among servers after the initial population) is somewhat similar. Specifically, in the case of redistribution of the MD bitstreams among servers after the initial population, the present method begins the method of steps 602-612 with updated user statistics to identify the hottest cell, and to determine if the new hot spots (i.e. hottest cells) are being properly serviced. Hence, the present embodiment enables dynamic reassigning of MD bitstreams based upon user defined criteria. As an example, in one embodiment, the method of the present invention (i.e. steps 602-612) is restarted each time interval of a predefined duration. In another embodiment, the method of the present invention is restarted based upon a hit or miss rate at a given server. In still another embodiment, the method of the present invention is restarted based upon certain known traffic patterns to which the network is subjected. In yet another embodiment, the method of the present invention is restarted based upon network congestion conditions. Various other embodiments of the present invention reassign MD bitstreams based upon other criteria. For example, in various embodiments, MD bitstreams are reassigned when: a server is overloaded (i.e. the server is running out of computational cycles); the storage ~~capacity of at~~ capacity of a server is exceeded; or upon network partition (e.g. link failure which is different from congestion). Although such specific examples are recited above, the present method is well suited to

dynamically reassigning the MD bitstreams to servers after the initial population thereof based upon various other parameters.

Please replace the paragraph beginning on page 27, line 6, with the following amended paragraph:

The present embodiment is also well suited to varying the method recited in steps 602-612 of Figure 6 such that the data to be streamed is initially populated on or redistributed to portions of a network where greater activity is expected. For example, in one embodiment of present invention, the MD bitstreams are stored on or redistributed to those servers which are proximate to or accessed from a heavily traveled commute corridor. In so doing, the MD bitstreams are disposed more closely to the large quantity of mobile clients which are expected to be traveling along ~~commute~~ <u>that commute</u> corridor. In one embodiment of the present invention, during non-commute hours, the MD bitstreams are then redistributed from those servers which are proximate to or accessed from the heavily traveled commute corridor to a more appropriate location. More generally, the present method is well suited to varying the location at which the MD bitstreams are stored to accommodate anticipated mobile client location and demand.

Please replace the paragraph beginning on page 29, line 7, with the following amended paragraph:

As still another benefit, the present ~~invention is~~ <u>invention</u> also reduces input/output (I/O) bandwidth used on a server as compared to conventional approaches. That is, in the present embodiments, each MD bitstream is encoded at a lower bitrate than the original complete stream. Hence, the transmission of the MD bitstream can be accomplished at a bitrate which is lower than that required to transmit the original complete stream.

Please replace the paragraph beginning on page 29, line 18, with the following amended paragraph:

As will be discussed in greater detail below, the MD media stream system of the various embodiments of the present invention must perform a number of steps prior to

and during a streaming session. The present section specifically discusses the assignment of servers (e.g. servers 702a-704d) to a mobile client (e.g. mobile clients 706a-706i). For purposes of clarity, the embodiments of the present invention are described partly in conjunction with Figures 7A, 7B, and 7C. It should be noted, however, that streaming media system network 701 of Figures 7A-7C contains substantially the same components as system 300 of ~~Figure 3~~ <u>Figure 3A</u>. New Figures 7A-7C and system 701 are presented here, instead of again referring to ~~Figure 3~~ <u>Figure 3A</u>, so as to avoid unnecessarily crowding ~~Figure 3~~ <u>Figure 3A</u> with the additional illustrations included in Figures 7A-7C.

Please replace the paragraph beginning on page 29, line 31, and ending on page 30, line 5, with the following amended paragraph:

Furthermore, the following discussion will present three separate cases in which the present invention is employed. First, Figure 7A, will discuss an embodiment in which two servers and a single base station are employed. Figure 7B will then be used to illustrate an embodiment in which two servers and two base stations are employed. Lastly, Figure 7C will be used to illustrate still another embodiment of the present invention is which one server and two base stations are employed. It should be understood, that in a fixed client embodiment of, for example, ~~the depicted~~ <u>that depicted</u> in Figure 7A, the present invention may assign multiple servers to transmit multiple MD bitstreams to the fixed client rather than to one or more base stations. It should further be noted that the paths referred to in the present embodiments could be completely wired, or partially wireless. Also, the wireless part of different paths could go through different base stations (non-overlapping) or the same base station (overlapping). Even the wired parts of ~~different path~~ <u>different paths</u> could have some overlap.

Please replace the paragraph beginning on page 31, line 34, and ending on page 32, line 12, with the following amended paragraph:

With reference now to Figure 8, a ~~flow chart~~ <u>flow chart 800</u> of steps performed in accordance with one embodiment of the present invention is shown. The methods of the present embodiment will be described in conjunction with Figure 7A and flow chart 800 of Figure 8. Although specific steps are disclosed in flow chart 800 of Figure 8,

such steps are exemplary. That is, the present invention is well suited to performing various other steps or variations of the steps recited in Figure 8. Furthermore, as mentioned above in conjunction with the description of Figure 1, portions of the present method are comprised of computer-readable and computer-executable instructions which reside, for example, in computer-usable media of a computer system. The methods of the below listed embodiments are, in some instances, comprised of computer-readable and computer-executable instructions which reside, for example, in one or more of the SMs, the SAs, the base stations, or various combinations thereof. As will be described below in detail, in the present embodiment, MD bitstreams will be provided to mobile client 706a using two servers SM 702a and SA 702b and a single base station 704a as denoted by dotted line paths 703 and 705.

Please replace the paragraph beginning on page 33, line 4, with the following amended paragraph:

At ~~steps 808~~ step 808, the present method then intelligently evaluates the identified servers for suitability. In one embodiment of the present invention, the present method evaluates information collected via SNMP on those servers identified as possible candidates. More specifically, in one embodiment SM 702a evaluates factors such as: the computation load of identified servers 702a and 702b; network bandwidth to base station 704a for each of identified servers 702a and 702b; and the possibility of finding the requested stream in the cache for each of identified servers 702a and 702b. Importantly, although one embodiment considers computation load, network bandwidth and potential of being cached, there are various alternatives that will be possible. One of them is the application of rules obtained by datamining of access logs (i.e. rules that map factors like classification of the content requested and the daily and seasonal variations in access characteristics to the right set of servers for serving the multiple description streams). Although such evaluation steps are recited in the present embodiment, the present invention is well suited to including various other evaluation steps and/or altering the evaluation steps mentioned above.

Please replace the paragraph beginning on page 33, line 39, and ending on page 34, line 8, with the following amended paragraph:

It should be noted, that in one embodiment of the present invention, the intelligent evaluation process of step 808 is at least in part influenced by data sent by SNMP ~~agents~~ agents at step 807. In such an embodiment, the data is sent periodically or in response to a query from a SM. As mentioned above, although the present embodiment specifically mentions SNMP, such reference is intended to be exemplary and is not intended to limit the inventive concepts of the present invention. That is, the various embodiments of the present invention are well suited to the use of various network management protocols other than SNMP.

Please replace the paragraph beginning on page 34, line 10, with the following amended paragraph:

At step 814, based upon the above-described evaluation criterion, a server is identified as the best candidate for serving each of the MD streams. In the present example, SM 702a is identified as the best candidate for serving the first of the two MD bitstreams, and SA 702b is identified as the best candidate for serving the second of the two MD bitstreams. In summary, ~~step 806~~ steps 806, 807, 808 and 814 of the present embodiment comprise an analyzing process for determining the best candidate from a plurality of servers to provide respective MD bitstreams to a base station.

Please replace the paragraph beginning on page 36, line 23, with the following amended paragraph:

With reference again to Figure 8, a ~~flow chart~~ flow chart 800 of steps performed in accordance with one embodiment of the present invention is shown. The methods of the present embodiment will be described in conjunction with Figure 7B and flow chart 800 of Figure 8. As will be described below in detail, in the present embodiment, MD bitstreams will be provided to mobile client 706a using two servers SM 702a and SA 702b and two base stations 704a and 704b as denoted by dotted line paths 707 and 709. In such an embodiment, two complementary MD bitstreams are sent from two separate servers and travel through two separate paths (specifically separate wired and separate wireless paths) and therefore there is no single point of failure. This contrasts with the case illustrated in Figure 7A, where there were also two separate servers and two separate wired paths, but only a single wireless path.

Please replace the paragraph beginning on page 37, line 22, with the following amended paragraph:

At ~~steps 808~~ step 808, the present method then intelligently evaluates the identified servers for suitability. In one embodiment of the present invention, the present method evaluates information collected via SNMP on those servers identified as possible candidates. More specifically, in one embodiment SM 702a evaluates factors such as: the computation load of identified servers 702a and 702b; network bandwidth to base stations 704a and 704b for each of identified servers 702a and 702b, respectively; and the possibility of finding the requested stream in the cache for each of identified servers 702a and 702b. Importantly, although one embodiment considers computation load, network bandwidth and potential of being cached, there are various alternatives that will be possible. One of them is the application of rules obtained by datamining of access logs (i.e. rules that map factors like classification of the content requested and the daily and seasonal variations in access characteristics to the right set of servers for serving the multiple description streams). Although such evaluation steps are recited in the present embodiment, the present invention is well suited to including various other evaluation steps and/or altering the evaluation steps mentioned above.

Please replace the paragraph beginning on page 38, line 2, with the following amended paragraph:

Importantly, it should be noted that in some embodiments of the present invention, when performing the analysis to identify the appropriate servers to use (e.g. step 808), the analysis will take into account whether two separate servers as well as two separate base stations can be used. That is, in addition to conventional metrics such as computation and bandwidth loads, etc., on the servers, an additional metric employed by some embodiments of the present invention is the diversity that can be achieved. Specifically, in some embodiment, the present invention further has a goal of maximizing the diversity (e.g. desire to have two servers sending two complementary MD bitstreams over two paths to two base stations (over two wireless links) to the client). Thus, in the present embodiment to maximize diversity (along both wired and

wireless links) to mobile client 706a, two servers SA 702b and SM 702a and two base stations 704a and 704b are used to send the two MD bitstreams to mobile client 706a along ~~to completely~~ two completely different paths 707 and 709.

Please replace the paragraph beginning on page 38, line 19, with the following amended paragraph:

It should be noted, that in one embodiment of the present invention, the intelligent evaluation process of step 808 is at least in part influenced by data sent by SNMP ~~agents~~ agents at step 807. In such an embodiment, the data is sent periodically or in response to a query from a SM. As mentioned above, although the present embodiment specifically mentions SNMP, such reference is intended to be exemplary and is not intended to limit the inventive concepts of the present invention. That is, the various embodiments of the present invention are well suited to the use of various network management protocols other than SNMP.

Please replace the paragraph beginning on page 38, line 29, with the following amended paragraph:

At step 814, based upon the above-described evaluation criterion, a server is identified as the best candidate for serving each of the MD streams. In the present example, SM 702a is identified as the best candidate for serving the first of the two MD bitstreams to base ~~station 704a~~ station 704b, and SA 702b is identified as the best candidate for serving the second of the two MD bitstreams to base ~~station 704b~~ station 704a. In summary, ~~step 806~~ steps 806, 807, 808 and 814 of the present embodiment comprise an analyzing process for determining the best candidates from a plurality of servers to provide respective MD bitstreams to a plurality of base stations.

Please replace the paragraph beginning on page 41, line 5, with the following amended paragraph:

With reference again to Figure 8, a ~~flow chart~~ flow chart 800 of steps performed in accordance with one embodiment of the present invention is shown. The methods of the present embodiment will be described in conjunction with Figure 7C and flow chart 800 of Figure 8. As will be described below in detail, in the present embodiment, MD

bitstreams will be provided to mobile client 706a using ~~one servers~~ one server SM 702a and two base stations 704a and 704b as denoted by dotted line paths 711 and 713. In such an embodiment, two complementary MD bitstreams are sent from a single server and travel through two separate paths (specifically separate wired and separate wireless paths). This contrasts with the case illustrated in Figure 7A, where there were also two separate servers and two separate wired paths, but only a single wireless path, and with the case illustrated in Figure 7B where there were also two separate servers and two separate base stations.

Please replace the paragraph beginning on page 42, line 6, with the following amended paragraph:

At ~~steps 808~~ step 808, the present method then intelligently evaluates single server 702a for suitability. In one embodiment of the present invention, the present method evaluates information collected via SNMP on those servers identified as possible candidates. More specifically, in one embodiment SM 702a evaluates factors such as: the computation load of identified server 702a; network bandwidth to base stations 704a and 704b for identified server 702a, respectively; and the possibility of finding the requested stream in the cache for identified server 702a. Importantly, although one embodiment considers computation load, network bandwidth and potential of being cached, there are various alternatives that will be possible. One of them is the application of rules obtained by datamining of access logs (i.e. rules that map factors like classification of the content requested and the daily and seasonal variations in access characteristics to the right server for serving the multiple description streams). Although such evaluation steps are recited in the present embodiment, the present invention is well suited to including various other evaluation steps and/or altering the evaluation steps mentioned above.

Please replace the paragraph beginning on page 42, line 25, with the following amended paragraph:

Importantly, it should be noted that in some embodiments of the present invention, when performing the analysis to identify the appropriate server to use (e.g. step 808), the analysis will take into account whether two separate base stations can

be used. That is, in addition to conventional metrics such as computation and bandwidth loads, etc., on the server, an additional metric employed by some embodiments of the present invention is the diversity that can be achieved. Specifically, in some embodiment, the present invention further has a goal of maximizing the diversity (e.g. desire to have the single server send two complementary MD bitstreams over two paths to two base stations (over two wireless links) to the client). Thus, in the present embodiment to maximize diversity (along both wired and wireless links) to mobile client 706a, two base stations 704a and 704b are used to send respective ones of the MD bitstreams to mobile client ~~706a along to~~ 706a along two completely different paths 711 and 713.

Please replace the paragraph beginning on page 43, line 2, with the following amended paragraph:

It should be noted, that in one embodiment of the present invention, the intelligent evaluation process of step 808 is at least in part influenced by data sent by SNMP ~~agents~~ agents at step 807. In such an embodiment, the data is sent periodically or in response to a query from a SM. As mentioned above, although the present embodiment specifically mentions SNMP, such reference is intended to be exemplary and is not intended to limit the inventive concepts of the present invention. That is, the various embodiments of the present invention are well suited to the use of various network management protocols other than SNMP.

Please replace the paragraph beginning on page 43, line 12, with the following amended paragraph:

At step 814, based upon the above-described evaluation criterion, a server, SM 702a, is identified as the best candidate for serving the first of the two MD bitstreams to base station 704a and the second of the two MD bitstreams to base station 704b. In summary, ~~step 806~~ steps 806, 807, 808 and 814 of the present embodiment comprise an analyzing process for determining the best candidate from a plurality of servers to provide MD bitstreams to a plurality of base stations.

Please replace the paragraph beginning on page 45, line 13, with the following amended paragraph:

The following discussion pertains to methods of the present invention dealing with handing off of streaming media sessions between base stations of a wireless communication system. Specifically, such handing off typically occurs, for example, when the client changes location during a streaming session (i.e. the mobile client moves between different wireless cells). Such handing off may also occur, however, when, for any number of reasons, a different base station is assigned to handle the streaming media session with the mobile client. When such conditions occur, a smooth wireless handoff must be performed. That is, the first base station must "handoff" the media streaming session to the second base station. Handoff of a streaming session is generally performed with either a "soft" or a "hard" handoff technique. In a soft-handoff approach, the mobile client may communicate concurrently with both the first and the second base station as handoff process occurs. In a hard-handoff approach, the mobile client can communicate with only one or the other of the first and the second base stations as handoff process occurs. The following discussion, will ~~cover of the~~ cover methods of the present invention applicable to a soft-handoff approach and methods of the present invention applicable to a hard-handoff approach.

Please replace the paragraph beginning on page 45, line 33, and ending on page 46, line 3, with the following amended paragraph:

Soft-handoff is supported in some wireless communication systems, such as the code division multiple access (CDMA) based IS-95, by allowing a mobile client to simultaneously communicate with multiple base stations. The basic mechanism of a traditional soft-handoff system is outlined below in conjunction with Prior Art Figure 9. One advantage of soft-handoff systems is the ability to maintain communication at all times with the base station ~~with strongest~~ with the strongest signal strength. This advantage is particularly beneficial for systems where power control is used. However, one penalty associated with conventional soft-handoff approaches is the need to transmit multiple copies of the same data to the mobile client, thereby wasting scarce network resources.

Please replace the paragraph beginning on page 49, line 35, and ending on page 50, line 10, with the following amended paragraph:

Next, as mobile client 902 moves into region C and farther away from base station 904 , the channel quality from base station 904 drops below the drop threshold value, and mobile client 902 communicates only with base station 906 as depicted by arrow 1008. When in region C, mobile client 902 communicates exclusively with base station 906 as depicted by arrow 1008. In the present example, because both the first MD bitstream, D_0, and the second MD bitstream, D_1, are each stored at base station 906, either or both of the first and second MD bitstreams D_0 and D_1 can be transmitted to mobile client 902. In a case where only one of the two MD bitstreams is stored at base station 906, only that one MD bitstream will be transmitted to mobile client 902. Also, the present method is well suited to an embodiment in which only one of the two MD bitstreams are transmitted to mobile client 902 in region C, even though both the first MD bitstream, D_0, and the second MD bitstream, D_1, are stored at base ~~station 904~~ station 906.

Please replace the paragraph beginning on page 52, line 18, and ending on page 53, line 4, with the following amended paragraph:

With reference now to Figures 13A and 13B, diagrams depicting utilization improvements achieved in accordance with various embodiments of the present method are shown. Figures 13A and 13B each include three mobile clients A, B, and C, and a base station 1302 all within a common cell 1303. Communication channels/links are schematically depicted by arrows 1304, 1306, 1308, and 1310. In the present embodiment, the following example will further assume that the media to be streamed (e.g. a video stream) has been or will be encoded into two separate complimentary MD bitstreams, D0 and D1, whose combined data-rate is close to that of D of Figure 12. Such MD coding to provide multiple description bitstreams has been described above in detail. Specifically, in the present embodiment, base station 1302 is transmitting the first MD bitstream, D0, to mobile client A using channel 1304, and base station 1302 is transmitting the second MD bitstream, D1, to mobile client A using channel 1306. Similarly, base station 1302 is transmitting the first MD bitstream, D0, to mobile client B using channel 1308, and base station 1302 is transmitting the second

MD bitstream, D1, to mobile client B using channel 1310. Once again, the present example is presented only for purposes of illustration of the present embodiment. That is, the present invention is well suited to the case in which the requested media is encoded into other than two separate complimentary MD bitstreams. Hence, unlike a conventional wireless system, the present method does not employ only a single stream of data. Additionally, in ~~Figure 13 A~~ Figure 13A, it is assumed that base station 1302, has just enough capacity to provide the first and second MD bitstreams to each of the two mobile clients, A and B.

Please replace the paragraph beginning on page 55, line 4, with the following amended paragraph:

At step 1408, provided the base station did not, at step 1404, have sufficient capacity to provide one or more of a plurality of MD bitstreams to the new mobile client, the present method determines if an existing client is presently receiving ~~one or more~~ more than one of a plurality of MD bitstreams. If an existing client is not presently receiving ~~one or more~~ more than one of a plurality of MD bitstreams, the present embodiment returns to the beginning of the present method. If an existing client is presently receiving ~~one or more~~ more than one of a plurality of MD bitstreams, the present embodiment proceeds to step 1410.

Please replace the paragraph beginning on page 55, line 14, with the following amended paragraph:

At step 1410, the present method allocates at least one of the ~~one or more of a~~ existing client's plurality of MD bitstreams to the new mobile client.